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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,218	08/29/2001	Takashi Naiki	81876.0024	8887
26021	7590	07/01/2004	EXAMINER	
HOGAN & HARTSON L.L.P. 500 S. GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071-2611			KASSA, YOSEF	
			ART UNIT	PAPER NUMBER
			2625	41

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,218

Applicant(s)

NAIKI ET AL.

Examiner

YOSEF KASSA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-14 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08/29/2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. That is, the phrase "assuming" cited in claim 1 is vague and indefinite.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (U.S. Patent 5,283,635), and further in view of Tanaka et al (U.S. 5,155,581).

With regard to claim 1, Suzuki et al discloses voltage band, i.e., range, determination means (see Fig. 8, voltage range 0-n) for determining a voltage band (see col. 4, lines 10-14), generated by an image sensor outputting a compressed image (compressive image sensor) in response to the light received by said compressive image sensor (see col. 4, lines 20-28); and image conversion means for converting said

voltage band by expanding said band, assuming the voltage to depend linearly on the intensity of light over said voltage band (see col. 4, lines 35-51).

Suzuki et al does not explicitly call for an image displaying process. However, in the same field of endeavor, Tanaka et al discloses this feature (see Fig. 2A, item 600). At the time of the invention, it would have been obvious to incorporate the teaching of Tanaka et al image enhancing process into Suzuki et al system. The motivation for doing so is to display an image signal.

With regard to claim 2, Suzuki et al discloses compressive image sensor is a logarithmic conversion image sensor (see col. 4, lines 20-25).

Allowable Subject Matter

1. Claims 5-14 are allowed.
2. The following is an examiner's statement of reasons for allowance. The closest prior art of record failed to teach or suggest, constructing a ratio of the sum of the assessment pixel data belonging to an assessment area that precedes currently processing pixel data to the sum of said assessment pixel data summed on the assumption that all of said assessment pixel data have maximum possible values, multiplying each of the pixel data by said ratio and a first predetermined coefficient, and replacing by a prescribed post conversion maximum those pixel data that exceed said maximum upon multiplication of said ratio and said coefficient and second conversion for obtaining second conversion data by subtracting each of said pixel data from post conversion maximum, and multiplying each of the subtracted data of by a second

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predetermined coefficient, and in combination with all the other limitations claims 5-14 are allowable.

3. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art Cited

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. (6,404,487) to Sato et al disclose light measuring device.

US Patent No. (5,214,294) to Toyofuku disclose scan reading method...

US Patent No. (4,974,007) to Yoshida discloses photographing device having plural range...

US Patent No. (5,291,044) to Gaboury et al disclose image sensor with continuous time photodiode.

US Patent No. (4,281,295) to Nishimura et al disclose noise reducing apparatus.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (703) 306-5918. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH MEHTA can be reached on (703) 308-5246. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communication and (703) 872-9306 for after Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (703) 306-5631. The group receptionist number for TC 2600 is (703) 305-4700.

PATENT EXAMINER

Yosef Kassa

06/23/04.



**BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**